WHAT IS CLAIMED IS:

1. A stereoscopic photographing lens unit that is attached to a camera main unit and has a first photographing optical axis and a second photographing optical axis, comprising:

control means for controlling a photographing optical system; and

transmitting means for transmitting predetermined information of the photographing optical system, including control information provided by the control means, to the camera main unit.

2. A stereoscopic photographing lens unit according to Claim 1, wherein

said transmitting means transmits first information regarding a focal length of the photographing optical system, second information regarding the interval between the incident optical axes of a first photographing optical axis and a second photographing optical axis, and third information regarding the angle formed by the incident optical axes of the first photographing optical axis and the second photographing optical axis to the camera main unit in the form of digital values.

3. A stereoscopic photographing lens unit according to Claim 1, further comprising:

a recording medium for storing the predetermined information of the photographing optical system.

4. A stereoscopic photographing lens unit according to Claim 1, wherein

the stereoscopic photographing lens unit is interchangeable with respect to the camera main unit, and transmits the predetermined information of the photographing optical system through a mounting contact to the camera main unit.

5. A stereoscopic photographing apparatus that has a first photographing optical axis and a second photographing optical axis, and switches picture signals for left eye and right eye, respectively, for each field through the intermediary of the respective photographic optical axes before inputting an image, comprising:

control means for controlling a photographing optical system; and

recording means for recording predetermined information of the photographing optical system, including control information provided by the control means, and information regarding whether the odd/even field of an input picture

signal corresponds to a picture signal for left eye or right eye to a recording medium in the form of digital values, together with picture signals or picture signals and speech signals.

6. A stereoscopic photographing apparatus according to Claim 5, wherein

said recording means records first information regarding the focal length of the photographing optical system, second information regarding an interval between the incident optical axes of a first photographing optical axis and a second photographing optical axis, and third information regarding the angle formed by the incident optical axes of the first photographing optical axis and the second photographing optical axis to a recording medium, and also records fourth information, which is the information regarding the angle of view calculated from the screen size of an image pick-up device and the first information.

7. A photographing system for recording picture signals simultaneously input by a right-eye photographing apparatus and a left-eye photographing apparatus to a recording medium by switching the picture signals for each field, comprising:

control means for controlling each photographing

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optical system; and

 $\sum_{i=1}^{n} (i,j) = C_{i}$

recording means for recording predetermined information of the photographing optical systems, including control information provided by the control means, and information regarding whether the odd/even field of an input picture signal corresponds to a picture signal for left eye or right eye to a recording medium in the form of digital values, together with picture signals or picture signals and speech signals.

8. A photographing system according to Claim 7, wherein

regarding the focal length of the photographing optical system, second information regarding an interval between the incident optical axes of a first photographing optical axis and a second photographing optical axis, and third information regarding the angle formed by the incident optical axes of the first photographing optical axis and the second photographing optical axis to a recording medium, and also records fourth information, which is the information regarding the angle of view calculated from the screen size of an image pick-up device and the first information.